

II. Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A sample arraying/assembling device comprising:
a distributing section which is capable of holding respective solutions containing samples to be distributed, the distributing section comprising a plurality of holding ends arranged in a predetermined matrix, the matrix comprising:
a plurality of columns spaced in a parallel relation at predetermined first spacing intervals in a first direction; and
a plurality of lines spaced in a parallel relation at predetermined second spacing intervals in a second direction, the second direction being perpendicular to the first direction, each of the lines having a first length in the first direction equal to at least the sum of the predetermined first spacing intervals of the columns in the first direction;
and
a wound body comprising:
one of a plate body and a prism, the one of the plate body and the prism defining a plane surface of the wound body; and
a string-like or thread-like slender foundation member having a second length and on which the samples are to be distributed at distribution intervals of column or line of the matrix, wherein the second length of the foundation member is equal to at least the product of the first length multiplied by the number of lines in the matrix;
wherein ~~the foundation member is wound around the one of the plate body and the prism in accordance with a winding route so that:~~ parallel-spaced portions of the foundation member are arranged on the plane surface of the wound body and are spaced in a parallel relation on the plane surface at winding intervals corresponding to the predetermined second spacing intervals of the line or column lines of the matrix; and

wherein the number of parallel-spaced portions of the foundation member equals the number of lines in the matrix;

respective wherein the holding ends of the distributing section can come into contact with the foundation member in response to relative movement between the distributing section and the wound body in a third direction, the third direction being perpendicular to each of the first and second directions; and

wherein, in response to the relative movement between the distributing section and the wound body in the third direction and the resulting contact of the holding ends with the foundation member, the distributing section distributes the samples on the wound foundation member in distribution positions of the respective samples provided at the distribution intervals along the winding route of the foundation member along each of the parallel-spaced portions of the foundation member, the distributed samples being spaced at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix.

2. (Original) A sample arraying/assembling device according to claim 1, comprising a container which has a plurality of wells capable of storing the respective solutions containing said samples to be distributed, arrayed in said predetermined matrix, and said respective holding ends of said distributing section are provided so as to be able to be inserted into said respective wells.
3. (Original) A sample arraying/assembling device according to claim 1, wherein said distributing section has liquid storing sections capable of storing the respective solutions containing the samples to be distributed, arrayed in said predetermined matrix, and said holding ends are respectively communicated with said liquid storing sections.
4. (Canceled)
5. (Canceled)

6. (Previously Presented) A sample arraying/assembling device according to any one of claim 1 through claim 3, wherein said distributing section has a plurality of holding ends projecting to the bottom side of a rectangular board, and arranged in said predetermined matrix.
7. (Previously Presented) A sample arraying/assembling device according to any one of claim 1 through claim 3, wherein said holding ends have a material with a water bearing property.
8. (Previously Presented) A sample arraying/assembling device according to any one of claim 1 through claim 3, wherein the surface of said wound body is provided with a localization section which localizes the samples within a fixed range on said foundation member, in distribution positions of the respective samples provided at distribution intervals of the column or line along a winding route of said foundation member which has been provided in parallel at said winding intervals of the line or column of the predetermined matrix.
9. (Original) A sample arraying/assembling device according to claim 8, wherein said localization sections are concavities at said distribution intervals of the column or line, along the winding route of said foundation member that has been provided in parallel at the winding intervals of the line or column of the predetermined matrix, and said foundation member is in contact with the holding ends in said concavities.
10. (Original) A sample arraying/assembling device according to claim 8, wherein said localization sections are convex portions provided at said distribution intervals of the column or line, along the winding route of said foundation member that has been provided in parallel at the winding intervals of the line or column of the predetermined matrix.
11. (Previously Presented) A sample arraying/assembling device according to any one of claim 1 through claim 3, wherein the surface of said wound body is formed with striations for guiding the foundation member along the winding route of said foundation member.

12. (Previously Presented) A sample arraying/assembling device according to any one of claim 1 through claim 3, comprising: a base which detachably attaches said container and/or said wound body solely or in laminations in this order; and a movable section which is detachably attached with said distributing section above said base, and which can move the distributing section vertically so that it can be in contact with or separated from said container and/or the wound body.

13-16 (Canceled)

17. (Currently Amended) A sample arraying/assembling device comprising:
a distributing section which is capable of holding respective solutions containing samples to be distributed, the distributing section comprising a plurality of holding ends arranged in a predetermined matrix, the matrix comprising:
a plurality of columns spaced in a parallel relation at predetermined first spacing intervals in a first direction; and
a plurality of lines spaced in a parallel relation at predetermined second spacing intervals in a second direction, the second direction being perpendicular to the first direction, each of the lines having a first length in the first direction equal to at least the sum of the predetermined first spacing intervals of the columns in the first direction;
a wound body defining a plane surface, the wound body comprising a string-like or thread-like slender foundation member having a second length and on which the samples are to be distributed at distribution intervals of column or line of the matrix, wherein the second length of the foundation member is equal to at least the product of the first length multiplied by the number of lines in the matrix, wherein the foundation member is wound in accordance with a winding route so that: parallel-spaced portions of the foundation member are arranged on the plane surface of the wound body and are spaced in a parallel relation on the plane surface at the winding intervals corresponding to the predetermined second spacing intervals of the ~~line or column~~ lines of the matrix; and, wherein the number of parallel-spaced portions of the foundation member equals the number

of lines in the matrix, and respective wherein the holding ends of the distributing section can come into contact with the foundation member in response to relative movement between the distributing section and the wound body in a third direction, the third direction being perpendicular to each of the first and second directions;

a detachably provided core to which one end of said foundation member is attached, and which is to be wound with said foundation member; and

a foundation member rolling section which sequentially takes out said foundation member from said wound body while rolling it up around said core at narrower intervals than said winding intervals; so as to assemble and arrange said foundation member;

wherein, in response to the relative movement between the distributing section and the wound body in the third direction and the resulting contact of the holding ends with the foundation member, the distributing section distributes the samples on the wound foundation member in distribution positions of the respective samples provided at the distribution intervals along the winding route of the foundation member along each of the parallel-spaced portions of the foundation member, the distributed samples being spaced at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix.

18. (Currently Amended) A sample arraying/assembling method of distributing samples at once at distribution intervals of column and line of a predetermined matrix, on a string-like or thread-like slender foundation member, comprising:

a holding step for holding respective solutions containing samples to be distributed, on a plurality of holding ends arranged in the predetermined matrix, the matrix comprising:

a plurality of columns spaced in a parallel relation at predetermined first spacing intervals in a first direction; and

a plurality of lines spaced in a parallel relation at predetermined second spacing intervals in a second direction, the second direction being perpendicular to the first direction, each of the lines having a first length in the first

direction equal to at least the sum of the predetermined first spacing intervals of the columns in the first direction;

providing a wound body, comprising:

providing one of a plate body and a prism, the one of the plate body and the prism defining a plane surface of the wound body; and

winding the foundation member around the one of the plate body and the prism in accordance with a winding route so that parallel-spaced portions of the foundation member are arranged on the plane surface of the wound body and are spaced in a parallel relation on the plane surface at winding intervals corresponding to the predetermined second spacing intervals of the line or column lines of the matrix, wherein the foundation member has a second length that is equal to at least the product of the first length multiplied by the number of lines in the matrix, and wherein the number of parallel-spaced portions of the foundation member equals the number of lines in the matrix; and

a contact step for making said respective holding ends contact with said foundation member by effecting relative movement between the distributing section and the wound body in a third direction, the third direction being perpendicular to each of the first and second directions; and

distributing the samples on the wound foundation member in distribution positions of the respective samples provided at the distribution intervals along the winding route of the foundation member

wherein, in response to the relative movement between the distributing section and the wound body in the third direction and the resulting contact of the holding ends with the foundation member, the distributing section distributes the samples along each of the parallel-spaced portions of the foundation member, the distributed samples being spaced at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix.

19. (Original) A sample arraying/assembling method according to claim 18, wherein said holding step is performed by inserting said holding ends into respective wells of a container

having a plurality of wells arranged in the predetermined matrix, and storing solutions containing samples to be distributed.

20. (Original) A sample arraying/assembling method according to either one of claim 18 and claim 19, wherein said holding step comprises supplying the solution arranged in the predetermined matrix, and containing samples to be distributed, into a plurality of respective holding ends from the inside thereof.

21-26 (Canceled)

27. (Withdrawn) A sample arraying/assembling device according to claim 1, further comprising:

a core joined to said wound body by said foundation member, the core having an axis of rotation and a peripheral curved face or two side faces or more either on which said samples are distributed in predetermined positions with intervals, or being wound or coated with said foundation member on which said samples are distributed at predetermined positions with intervals around said axis of rotation; and

a rotating section which intermittently rotates said core around said axis for each predetermined angle so that said respective samples can be distributed around said peripheral curved face, said respective side faces, or said wound or coated member, in a condition where the axis of said peripheral curved face, respective side faces, or wound or coated member is kept horizontal.

28. (Withdrawn) A sample arraying/assembling device according to claim 1, further comprising:

a core joined to said wound body by said foundation member, the core having an axis of rotation and a peripheral curved face or two side faces or more either on which said samples are distributed in predetermined positions with intervals, or being wound or coated with said foundation member on which said samples are distributed at predetermined positions with intervals around said axis of rotation;

a translucent or semitranslucent pipette tip capable of storing said core and having an axis and a fluid drawing and discharging opening;

a rotating section which intermittently rotates said pipette tip and said core stored in said pipette tip, around the axis of said pipette tip or the core for each predetermined angle; and

an optical information acquisition section which receives light from said core based on the intermittent rotation of said rotating section and obtains optical information.

29. (Previously Presented) A sample arraying/assembling device according to claim 1, wherein said wound body has a rotationally symmetric axis so as to be orthogonal or approximately orthogonal to the axis.

30. (New) The sample arraying/assembling device of claim 1, wherein the one of the plate body and the prism is the plate body;
wherein the plate body comprises:

first and second edges spaced in a parallel relation;

a plurality of parallel-spaced striations formed in the plane surface and positioned between the first and second edges,
wherein each of the striations is perpendicular to each of the first and second edges,

wherein the striations are spaced at intervals corresponding to the predetermined second spacing intervals of the lines of the matrix,
wherein each of the striations has a third length that is equal to at least the first length, and

wherein the number of striations equals the number of lines in the matrix;

and

a plurality of concavities formed in the plane surface along each of the striations,
wherein the concavities in each of the pluralities of concavities are spaced along the corresponding striation at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix;

wherein each of the parallel-spaced portions of the foundation member extends along a respective one of the striations and thus also along the corresponding plurality of concavities spaced along the respective one of the striations; and
wherein, in response to the relative movement between the distributing section and the wound body in the third direction, each of the holding ends contacts the foundation member at a location corresponding to the location of a respective one of the cavities in a respective one of the pluralities of concavities.

31. (New) The sample arraying/assembling device of claim 17, wherein the wound body comprises a plate body;
wherein the plate body comprises:
first and second edges spaced in a parallel relation;
a plurality of parallel-spaced striations formed in the plane surface and positioned
between the first and second edges,
wherein each of the striations is perpendicular to each of the first and second edges,
wherein the striations are spaced at intervals corresponding to the predetermined second spacing intervals of the lines of the matrix,
wherein each of the striations has a third length that is equal to at least the first length, and
wherein the number of striations equals the number of lines in the matrix;
and
a plurality of concavities formed in the plane surface along each of the striations,
wherein the concavities in each of the pluralities of concavities are spaced along the corresponding striation at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix;
wherein each of the parallel-spaced portions of the foundation member extends along a respective one of the striations and thus also along the corresponding plurality of concavities spaced along the respective one of the striations; and
wherein, in response to the relative movement between the distributing section and the wound body in the third direction, each of the holding ends contacts the

foundation member at a location corresponding to the location of a respective one of the cavities in a respective one of the pluralities of concavities.

32. (New) The sample arraying/assembling method of claim 18, wherein the one of the plate body and the prism is the plate body;
wherein the plate body comprises:

first and second edges spaced in a parallel relation;
a plurality of parallel-spaced striations formed in the plane surface and positioned between the first and second edges,
wherein each of the striations is perpendicular to each of the first and second edges,
wherein the striations are spaced at intervals corresponding to the predetermined second spacing intervals of the lines of the matrix,
wherein each of the striations has a third length that is equal to at least the first length, and
wherein the number of striations equals the number of lines in the matrix;
and

a plurality of concavities formed in the plane surface along each of the striations,
wherein the concavities in each of the pluralities of concavities are spaced along the corresponding striation at intervals corresponding to the predetermined first spacing intervals of the columns of the matrix;
wherein each of the parallel-spaced portions of the foundation member extends along a respective one of the striations and thus also along the corresponding plurality of concavities spaced along the respective one of the striations; and
wherein, in response to the relative movement between the distributing section and the wound body in the third direction, each of the holding ends contacts the foundation member at a location corresponding to the location of a respective one of the cavities in a respective one of the pluralities of concavities.